

LISTING OF ALL THE CLAIMS

1-19. (Canceled).

20. (Previously presented) A method of verifying a financial transaction comprising: receiving via a voice channel of a digital wireless telecommunications network a set of audio tones representing a merchant financial verification request, a first tone in the set of audio tones representing a first binary portion of the financial verification request, and a second tone in the set of audio tones representing a second portion of the financial verification request; converting the received set of audio tones into a financial verification request; and analyzing the financial verification request to determine whether to transmit an authorization message.

21. (Previously presented) The method of claim 20 including generating an authorization message and converting the message to a second set of audio tones for transmission via the digital wireless telecommunications network.

22. (Previously presented) The method of claim 20 including the steps of:
providing a wireless remote communication apparatus (“RCA”) having a vocoder for transmitting and receiving human voice content over a voice channel of the digital wireless communication network;
providing a call receiver apparatus (“CRA”) also capable of transmitting and receiving human voice content over a voice channel of the digital wireless communication network;
defining one or more control codes reserved for communication control signaling over the voice channel, each control code comprising one or more alpha-numeric characters;
establishing a digital voice channel connection between the RCA and the call receiver apparatus CRA;
in a first one of the RCA and the CRA, selecting one of the communication control codes for transmission to the other one of the RCA and the CRA;
in the first one of the RCA and the CRA, converting the selected control code into an audio tone representation;
in the first one of the RCA and the CRA, formatting the audio tones in a vocoder so as to form digital transmission data;
in the first one of the RCA and the CRA, transmitting the digital transmission data over the digital voice channel connection to the other one of the RCA and the CRA; and

in the other one of the RCA and the CRA, detecting the control code to effect control signaling transparently over the voice channel.

23. (Currently amended) A wireless financial transaction verification apparatus comprising:

a transaction information terminal operable to communicate financial transaction information over a financial verification network;

a converter operatively connected to the transaction information terminal, the converter operable to convert the financial transaction information into a set of audio tones ;

a wireless communication device operably connected to the converter such that the wireless communication device can receive the set of audio tones from the converter and transmit the received audio tones over a voice channel of a digital wireless telecommunications network, wherein the converter comprises a input for receiving digital data from the transaction information terminal and a tone generation module for encoding the digital data into a series of audio frequency tones; each audio frequency tone having a frequency selected so as to avoid frequencies that are characteristic of human voice thereby minimizing interference with simultaneous voice traffic on the channel.

24. (Previously presented) A wireless financial transaction verification apparatus according to claim 23 wherein the transaction information terminal includes a card scanner.

25. (Previously presented) A wireless financial transaction verification apparatus according to claim 23 wherein the transaction information terminal includes an input device for entry of a transaction amount.

26. (Previously presented) A wireless financial transaction verification apparatus according to claim 23 wherein the terminal includes a display for displaying a received approval status message.

27. (Canceled).

28. (Currently amended) A wireless financial transaction verification apparatus according to claim [27] 23 wherein the wireless communications device comprises:

a voice/data signal encoder/decoder (vocoder) for sampling the audio frequency tones and forming digital signals for transmission over the digital wireless telecommunication network; and

a transmission system for transmitting the digital signals over the voice channel of the digital wireless telecommunication network.

29. (Previously presented) A wireless financial transaction verification apparatus according to claim 23 wherein the wireless communication device is a digital cellular telephone.

30. (Previously presented) A system for verifying financial transactions between a customer and a merchant, the merchant having a credit card verification terminal operable to receive data representing a financial transaction and encode the received data for transmission via a financial verification network comprising:

a converter operably coupled to the credit verification terminal to accept the encoded received data from the credit card verification terminal and convert the encoded received data in a set of audio tones;

a cellular communications device operably coupled to the converter for receiving the set of audio tones from the converter and transmitting the audio tones over a voice channel of a digital telecommunications network to a financial verification facility.

31. (Previously presented) A system according to claim 30 wherein the set of audio tones have a frequency that is selected so as to avoid frequencies that are characteristic of human voice thereby minimizing interference with simultaneous voice traffic on the voice channel.

32. (Previously presented) A system according to claim 30 wherein the cellular communication device includes a voice/data signal encoder/decoder (vocoder) operable to sample the set of audio tones and form a digital signal for transmission over the voice channel of the digital wireless telecommunication network

33. (Previously presented) A method of verifying financial transactions comprising:
receiving data representing a financial transaction at a financial transaction verification terminal;

encoding the received data for transmission via a financial verification network;
converting the encoded received data into a set of audio tones, wherein a first portion of the set of audio tones represents a first portion of the encoded received data and a second portion of the set of audio tones represents a second portion of the encoded received data; and

transmitting the set of audio tones over a voice channel of a digital wireless telecommunications network.

34. (Previously presented) A method of verifying financial transactions according to claim 33 wherein the set of audio tones includes first audio tones having a first frequency selected so as to avoid frequencies that are characteristic of human voice.

35. (Previously presented) A method of verifying financial transaction according to claim 34 wherein the set of audio tones includes second audio tones having a second frequency selected so as to avoid frequencies that are characteristic of human voice.